

Appendix A

```

<?xml encoding="UTF-8"?>
5  <!-- $Id: //depot/R2.5/xml/RaptAnalysis.dtd#1 $-->
<!ELEMENT RaptAnalysis (Action, (Input|Output))>
5  <!ELEMENT Action EMPTY>
<!ATTLIST Action
    name (OptimalPlan |RiskAnalysis
10    |GraphSensitivity|TornadoSensitivity|ComponentConsumption|GatedProductsAnalysis
        s
        |GatingComponentsAnalysis|UnknownAction) #REQUIRED>
<!ELEMENT Input (ProductParameters+, CalculationParameters?,
    ComponentParameters+, Consumption+, ProductInteractions*, SensitivityBaseInfo?,
    (SensitivityGraphInfo?!SensitivityTornadoInfo*),
15    (FocalComponentParameters?!FocalProductParameters?))>
<!ELEMENT ProductParameters EMPTY>
<!ATTLIST ProductParameters
    product_id CDATA #IMPLIED
    period_id CDATA #IMPLIED
    product_name CDATA #IMPLIED
20    cost CDATA #REQUIRED
    asp CDATA #REQUIRED
    demand_std_dev CDATA #REQUIRED
    ship_plan CDATA #REQUIRED
    demand_mean CDATA #REQUIRED
    target_support_level CDATA #REQUIRED
25    target_support_level_conf CDATA #REQUIRED
    demand_high CDATA #IMPLIED
    demand_prob_lower CDATA #IMPLIED>
<!ELEMENT FocalProductParameters EMPTY>
30 <!ATTLIST FocalProductParameters
    product_id CDATA #IMPLIED
    period_id CDATA #IMPLIED
    product_name CDATA #IMPLIED>
<!ELEMENT ComponentParameters EMPTY>
35 <!ATTLIST ComponentParameters
    component_id CDATA #IMPLIED
    period_id CDATA #IMPLIED
    component_name CDATA #IMPLIED
    value_erosion CDATA #IMPLIED
40    supply_plan CDATA #IMPLIED
    cancellation_threshold CDATA #IMPLIED

```

cancellation_fee CDATA #IMPLIED
 cancellation_minimum CDATA #IMPLIED
 lead_time CDATA #IMPLIED
 expediting_fee CDATA #IMPLIED
 phase CDATA #IMPLIED
 cost CDATA #IMPLIED
 maximum_contract CDATA #IMPLIED
 minimum_contract CDATA #IMPLIED
 expedite_threshold CDATA #IMPLIED
 expedite_maximum CDATA #IMPLIED
 leadtime_constraint CDATA #IMPLIED
 leadtime_constraint_flag CDATA #IMPLIED
 status CDATA #IMPLIED
 plan_level CDATA #IMPLIED>

<!--ELEMENT FocalComponentParameters EMPTY-->

<!--ATTLIST FocalComponentParameters
 component_id CDATA #IMPLIED
 period_id CDATA #IMPLIED
 component_name CDATA #IMPLIED-->

<!--ELEMENT Consumption EMPTY-->

<!--ATTLIST Consumption
 period_id CDATA #REQUIRED
 product_id CDATA #REQUIRED
 product_name CDATA #IMPLIED
 component_id CDATA #REQUIRED
 component_name CDATA #IMPLIED
 driver_name CDATA #IMPLIED
 mix CDATA #REQUIRED
 quantity CDATA #REQUIRED-->

<!--ELEMENT ProductInteractions EMPTY-->

<!--ATTLIST ProductInteractions
 period_id CDATA #REQUIRED
 product1_id CDATA #REQUIRED
 product1_name CDATA #IMPLIED
 product2_id CDATA #REQUIRED
 product2_name CDATA #IMPLIED
 quant_assessment CDATA #REQUIRED
 qual_assessment CDATA #IMPLIED-->

<!--ELEMENT CalculationParameters EMPTY-->

<!--ATTLIST CalculationParameters
 allocation_policy (Uniform|Prioritized) "Uniform"
 opt_bus_problem CDATA #REQUIRED
 analysis_mode (Commit|Respond) "Commit"
 supply_constraint (On|Off) "Off"

```
leadtime_constraint (On|Off) "Off"  
segment_switch (0|1) "1"  
confidence_level CDATA #IMPLIED>
```

Appendix B

```
<![ELEMENT Output (Error|(Plan?, ProductResults?, ComponentResults?,
    ComponentGatedProductResults?, ProductGatingComponentResults?,
    SensitivityGraphResults?, SensitivityTornadoResults?, AnalysisMetaResults?))]>
```

```
5 <![ELEMENT Error (AnalyticError*)>
  <![ELEMENT AnalyticError EMPTY>
  <![ATTLIST AnalyticError
    message CDATA #REQUIRED>
  <![ELEMENT AnalysisMetaResults (AnalysisMetaData+)>
10 <![ELEMENT AnalysisMetaData EMPTY>
  <![ATTLIST AnalysisMetaData
    elapsed_time CDATA #REQUIRED>
  <![ELEMENT Plan (ComponentLevel+)>
  <![ELEMENT ComponentLevel EMPTY>
15 <![ATTLIST ComponentLevel
    component_name CDATA #REQUIRED
    period_id CDATA #IMPLIED
    component_id CDATA #IMPLIED
    status CDATA #IMPLIED
    level CDATA #REQUIRED>
20 <![ELEMENT ProductResults (ProductData+)>
  <![ELEMENT ComponentResults (ComponentData+)>
  <![ELEMENT ProductData EMPTY>
  <![ATTLIST ProductData
25   product_name CDATA #IMPLIED
    product_id CDATA #IMPLIED
    period_id CDATA #IMPLIED
    mean_demand CDATA #IMPLIED
    availability_risk CDATA #IMPLIED
30   avg_fill_rate CDATA #IMPLIED
    avg_shortage_depth CDATA #IMPLIED
    expected_revenue_loss CDATA #IMPLIED
    expected_margin_loss CDATA #IMPLIED
    implied_support_level CDATA #IMPLIED
35   implied_support_level_conf CDATA #IMPLIED
    product_support_percentile CDATA #IMPLIED
    implied_product_support_percent CDATA #IMPLIED
    expected_revenue CDATA #IMPLIED
    expected_margin CDATA #IMPLIED>
40 <![ELEMENT ComponentData EMPTY>
```

<!ATTLIST ComponentData

component_name CDATA #IMPLIED
 component_id CDATA #IMPLIED
 period_id CDATA #IMPLIED
 5 plan_level CDATA #IMPLIED
 mean_demand CDATA #IMPLIED
 cancellation_cost CDATA #IMPLIED
 expected_erosion_cost CDATA #IMPLIED
 expediting_units CDATA #IMPLIED
 10 expediting_cost CDATA #IMPLIED
 flex_units CDATA #IMPLIED
 flex_pct CDATA #IMPLIED
 gating_risk CDATA #IMPLIED
 shortage_risk CDATA #IMPLIED
 15 avg_shortage_depth CDATA #IMPLIED
 avg_excess_depth CDATA #IMPLIED>